

but for plant lovers everywhere, and to stimulate interest in our flora among the people at large. The difficulties in comprehending the text, therefore, ought to be as few as possible. The adoption of the metric system would have added very sensibly to these difficulties, in matters of size, in which the unlearned are quite as much interested as the learned. Works depending on scientific patronage alone, and scientific publications by the government, may rightly adopt the metric notation; but the public at large, I think, can only be brought to it gradually, through the use of it in the primary schools.

Very truly yours,

ADDISON BROWN.

A comparative tabulation of the metric and English units will be printed in the third volume of *Illustrated Flora*.—N. L. BRITTON, *New York Botanical Garden*.

#### OVERSIGHT OF AMERICAN PUBLICATIONS.

*To the Editors of the Botanical Gazette*:—The attention of botanists should be called to the following somewhat glaring oversight of an important botanical paper. In 1892 Dr. Thaxter<sup>1</sup> published a paper entitled "On the Myxobacteriaceæ, a new order of Schizomycetes." One would have supposed that such a title would itself have attracted general attention. His paper is very complete, basing the new order of Schizomycetes upon the description of the structure and development of eight species in three genera, and is very well illustrated. This important contribution does not appear to have been noticed by Hugo Zukal,<sup>2</sup> who has recently founded a new order of Myxomycetes apparently upon a form identical with one of the species included in Dr. Thaxter's paper. As far as one may judge safely from a comparison of descriptions and figures, Zukal's *Myxobotrys variabilis* seems to be identical with *Chondromyces crocatus* B. & C. as described by Dr. Thaxter.

In respect to the structure of the plasmodium-like condition, together with the structure and development of the cystophores (Sporenträger) and cysts (Sporen) we find some important differences in the results obtained by these two investigators. Zukal finds granular matter in the substance of the plasmodium stage and some of it in the form of rods, but he considers them all to be microsomata. When the cystophores are developed the "rod-like microsomata disappear and in their places are found numerous long threads." Thaxter finds the pseudo-plasmodium to be made up of rod-like bodies whose general structure "together with their vegetative multiplication by fusion renders their schizomycetous nature as individuals a matter hardly to be doubted." When the fructification is to be developed the rods swarm

<sup>1</sup> BOT. GAZETTE, 17: 389-406, pl. 22-25. 1892.

<sup>2</sup> Myxobotrys variabilis Zuk. als Repräsentant einer neuen Myxomyceten-Ordnung. Ber. Deut. Bot. Gesell. 14: 340. 1896.

around certain centers, and moving upwards collect to form the cysts attached to the cystophore, which is largely made up of hardened secretion. The rods in the cysts may retain their simple vegetative character or they may form spores (*Myxococcus*).

Zukal thinks it probable that a motile stage similar to the myxamoeba stage of *Myxomycetes* follows the germination of the cysts. Thaxter has followed the germination of the cysts in detail. "The mass of rods thus freed begins at once to vegetate, the individuals dividing rapidly and entering upon a new period of activity."

Zukal, in spite of the simplicity of the plasmodium without nuclei and only made up of granular matter (*microsomata*), thinks the form of fructification sufficiently like some higher fungi (for example *Botrytis*) to hint a possible evolution of such forms from certain low types. Such evolution is to come about through epigenetic development embodying Lamarckian factors in an extreme form.

Thaxter sees in the structure and development of the rods undoubted schizomycete characters which clearly place the *Myxobacteriaceæ* in that group of plants. But while the rods are individuals they nevertheless act together in a remarkable manner, under certain conditions, to form a fructification resembling in superficial features certain filamentous fungi. The pseudo-plasmodium of the *Myxobacteriaceæ* has a certain similarity to the plasmodium of *Myxomycetes* but the cytological differences are enormous.

"In view of such important differences, the writer (Dr. Thaxter) would hesitate to assume even a remote genetic connection between two groups on a basis of resemblance which might well be purely accidental."

Perhaps in this connection it may not be out of place to inquire of Migula where he puts the *Myxobacteriaceæ*. No mention is made of the group in his account of the *Schizomycetes* to be found in *Die Natürliche Pflanzenfamilien*. — BRADLEY MOORE DAVIS, *University of Chicago*.

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#### BIBLIOGRAPHY OF HYPOXIS.

*To the Editors of the Botanical Gazette*:—I have examined with interest the article of Mr. Holm in the February number of the *GAZETTE* on *Hypoxis hirsuta*, the original presentation of which I had the pleasure of listening to at the Biological Society of Washington a few months since. The article contains one feature which though essentially unimportant may, however, be misleading to some of your readers. I refer to the statement that the name *Ornithogalum hirsutum* of Linnaeus is a *nomen nudum*, that is, a name which was never really published and which therefore is without standing in nomenclature. The evidence that Linnaeus' name was not a *nomen nudum* is contained in Mr. Holm's article; indeed, one could scarcely have secured